

Community Based Groundwater Monitoring

Based on “Installation Checklist” training document.

Step 1. Open the well. Keep all pieces and parts together.

Step 2. Uncoil and lay out logger(s) on the ground beside the well

Steps 3 - 4. Loop the cord of the barologger, and secure both loggers to the hanger with at least 5 zipties.

Step 5. With the cords stretched, measure and record the distance from the hanger to each sensor. Use the measurement tape on the water level recorder.

Step 6. Install the hanger, and lower the logger(s) into the well. Snip long ends of zip ties.

Step 7. Measure and record the water level with the water level recorder.

Step 8. Clean up.

Step 9. Take photos of the site.

Step 1. Open the well. Keep all pieces and parts together.

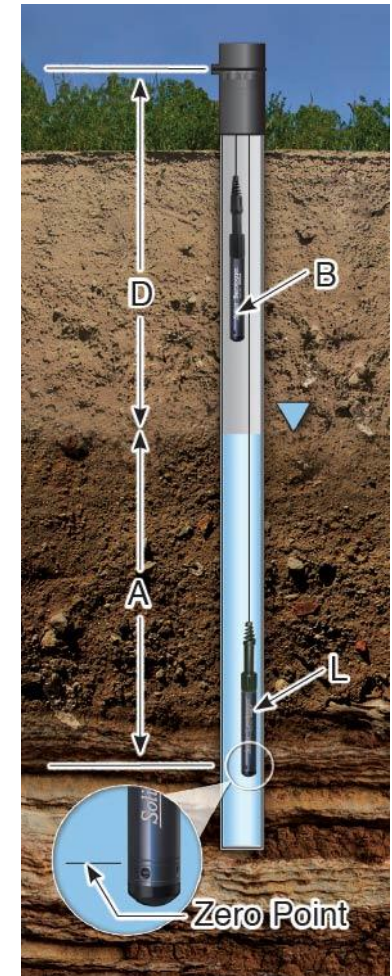
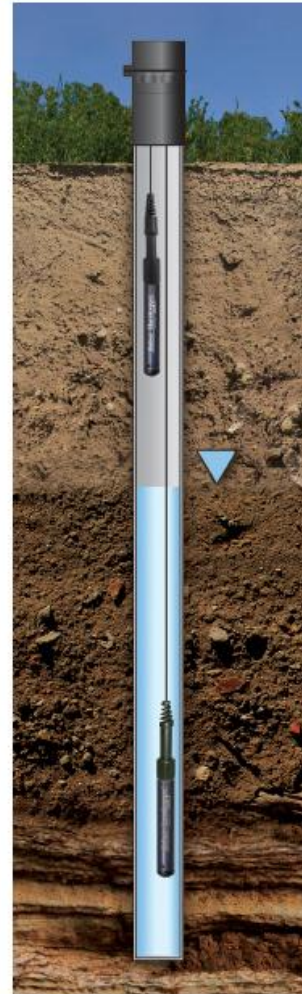


After this step, it is a good idea to test whether the hanger which will suspend the loggers, will fit in this well cap. In this photo you can see two types of hangers- a blue 8" hanger at the bottom of the photo, and a steel 6" hanger near my hand. Hangers can be purchased, but can also be built by a welder. Dimensions for a homemade U-hook style hanger are available in this kit. It is also a good idea to take a water level measurement at this step- if the water level is below the length of the logger cable, the logger will not be of use.

Step 2. Uncoil and lay out logger(s) on the ground beside the well



The loggers will look like this (centre diagram) in the well. Laying them out like this (left photo) will make sure there are no tangles, and allows an accurate measurement of the distance from the U-hook to the sensor. Without this measurement, water levels cannot be calculated (right diagram).



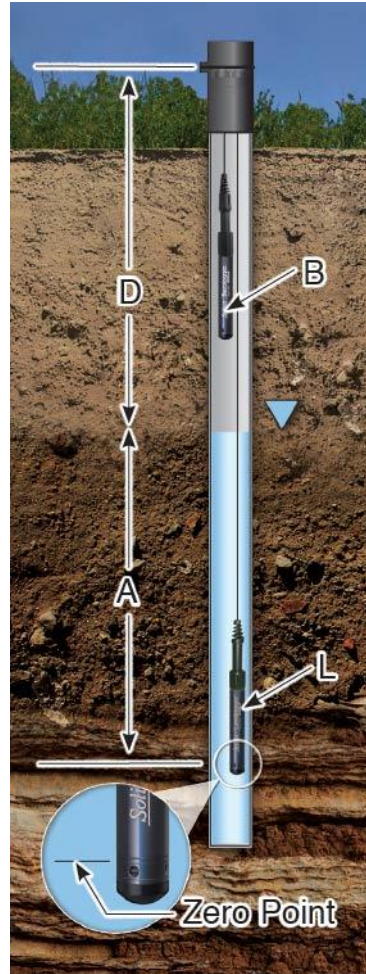
$$A = L - B$$

Steps 3 - 4. Loop the cord of the barologger, and secure both loggers to the hanger with at least 5 zipties.



Note here you can see the levellogger cord length is quite long and goes off the page (around 10 m). The barologger cord is quite short, around 1 m. The levellogger must be suspended into the water when it is installed and the barologger must stay above the water level.

Step 5. With the cords stretched, measure and record the distance from the hanger to each sensor. Use the measurement tape on the water level recorder.



Keep in mind that the distance must be measured to the zero point on the logger.

$$A = L - B$$

Step 6. Install the hanger, and lower the logger(s) into the well. Snip long ends of zip ties.



Step 7. Measure and record the water level with the water level recorder.



After this step, also assess the depth of the well. Turn off the WLR probe, and continue to lower the device into the well by unrolling the spool. Do not unroll it too quickly as it could smash at the bottom of the well (or meet an obstruction) or damage the probe(s). Record the depth of the well and/or the depth of any obstructions. It is also possible that the well is deeper than the spool, in which case historic data (such as drilling logs) will suffice for this information.